UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,097	02/02/2004	Adam Leslie Clark	6882P002	2044

8791 7590 04/04/2007 BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD SEVENTH FLOOR LOS ANGELES, CA 90025-1030	**EXAMINER** XU, KEVIN K

ART UNIT	PAPER NUMBER
2628	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/771,097	CLARK, ADAM LESLIE
	Examiner	Art Unit	
	Kevin K. Xu	2628	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _07 February 2005_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _02 February 2004_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to because of the following informalities: based on the example in the disclosure (see p. 19-20 paragraph 57), the numbers of red value and blue value for green value of pixels 3 and 4 appear to be incorrect in Fig. 4. Thus, proper correction is required. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-18 and 20 are rejected under 35 U.S.C. 101 because the claimed

invention the claimed invention is directed to non-statutory subject matter. Claim 1

lacks the practical application of producing a useful, concrete and tangible result (*See*

State Street Bank v. Signature Financial Group). Specifically claim 1 recites only

decoding and scaling pixel data. Thus, there is no tangible, concrete, useful result in

said claims. Examiner recommends including a recitation of displaying results after

scaling of pixel data. Furthermore claim 20 is directed to a "machine readable medium"

which also lacks the practical application of a producing a useful, concrete and tangible

result. Examiner recommends including a recitation of a "computer readable medium".

Thus, proper correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, 9-11, 13, 19-20 are rejected under 35 U.S.C. 102(e) as being

anticipated by Satoh (6597815)

Regarding claim 1, Satoh teaches decoding on a pixel-by-pixel basis, audio/video data using a table of encoded pixel parameter values, wherein each pixel is represented by an entry including a dominate pixel color component. (Col 1 lines 16-59, Col 2 lines 15-18, Col 3 lines 15-47, Col 5 lines 13-19, Col 5 line 50-Col 6 line 65, Col 8 lines 11-22, Col 9 lines 18-26, Col 9 lines 58-64, Col 10 lines 49-60, Col 11 lines 4-61, Figs 5-7) It should be noted that Satoh teaches each of the pixels in an 8 by 8 pixel block corresponds to are to be de-quantized (for decompression purposes) utilizing the 8 by 8 quantization tables in Fig. 7. Thus, the quantization table (entry) for luminance or chrominance color components must include a dominant color component (for example the dominant luminance color component for the quantization table is 121) which corresponds to one of the 64 pixels on the 8 by 8 pixel block image that is to be decoded as seen in Fig. 7. Furthermore Satoh teaches scaling a set of segment reference pixels comprised of segment reference pixel values according to each entry in the table of encoded pixel parameter values to produce decoded pixels comprised of decoded pixel parameter values. (Col 10 lines 49-60, Col 11 lines 4-61, Figs 5-7) It should be noted that Satoh teaches de-quantization by multiplying the decoded data with the quantization levels included in the quantization tables (scaling of segment reference pixel values according to each entry in the table of encoded pixel parameter values) and thus, producing decoded pixels comprising of decoded pixel parameter values.

Claim 20 is similar in scope to claim 1 except for the recitation of a machine readable medium storing a set of instructions that, when executed by the machine,

cause the machine to execute the a method of claim 1. Satoh also teaches this. (Col 22 lines 38-54, Fig. 1)

Claim 19 is similar in scope to claim 1 except for the recitation of wherein each pixel is represented by a single pixel entry. Again under the same rationale as claim 1, claim 19 does not require each pixel to be represented by only a signal color component in each color entry but instead merely requires representation by a single color entry. This is taught by Satoh because Satoh teaches quantization tables (entries) which contain color component values including a dominant color component (in Fig. 7A for example 121) Furthermore, Satoh teaches a segment is a fractional portion of the frame by teaching a frame as image data for one page and a segment as pixel blocks (8 by 8 pixels) divided from the page and decompression to be performed for every pixel block. (Col 1 lines 16-38)

Regarding claim 2, Satoh teaches wherein each set of segment reference pixels corresponds to an encoded segment of a frame. (Col 1 lines 16-59, Col 2 lines 15-18, Col 3 lines 15-47, Col 5 lines 13-19, Col 5 line 50-Col 6 line 65, Col 8 lines 11-22, Col 9 lines 18-26, Col 9 lines 58-64, Col 10 lines 49-60, Col 11 lines 4-61, Figs 5-7) Again, the encoded segment of a frame as taught by Satoh is shown in Figs. 3 and 4.

Regarding claim 3, Satoh teaches a unique set of color pixels for the encoded segment and wherein each segment reference pixel represents a pixel with a most intense dominant pixel color component. (Col 10 lines 49-60, Col 11 lines 4-61, Figs 5-7) Again it should be noted that Satoh teaches for each pixel block (segment) the

quantization table (entry) for luminance or chrominance color components must include

a dominant color component (for example the dominant luminance color component for

the quantization table is 121).

Regarding claim 5, Satoh teaches wherein the table of encoded pixel parameter

values further comprises luminance/chrominance. (Col 10 lines 49-60, Col 11 lines 4-

61, Fig. 7)

Regarding claim 9, Satoh teaches wherein the table of encoded pixel parameter

values further comprises non-dominant pixel color components. (Col 10 lines 49-60, Col

11 lines 4-61, Fig. 7) It should be noted that the quantization table for luminance

components for example comprises of a dominant color component 121 and other non-

dominant color components (all other values not being 121).

Regarding claim 10, Satoh teaches wherein set of segment reference pixels are

comprised of full-scale pixel parameter values. (Col 1 lines 16-59, Col 2 lines 15-18, Col

3 lines 15-47, Col 5 lines 13-19, Col 5 line 50-Col 6 line 65, Col 8 lines 11-22, Col 9

lines 18-26, Col 9 lines 58-64) It should be noted that the pixel block image data

(segments) prior to full compression (encoding) may be considered full-scale.

Regarding claim 11, Satoh teaches scaling each of the full-scale pixel parameter

values with the each corresponding encoded pixel parameter values. (Col 1 lines 16-59,

Col 2 lines 15-18, Col 3 lines 15-47, Col 5 lines 13-19, Col 5 line 50-Col 6 line 65, Col 8

lines 11-22, Col 9 lines 18-26, Col 9 lines 58-64, Figs 3-4) It should be noted that Satoh

teaches scaling each of the pixel blocks (8 by 8 pixels) utilizing a corresponding 8 by 8

quantization table to perform scaling. (Figs. 3-4)

Regarding claim 13, Satoh teaches prior to decoding the audio/video data,

receiving a file including the table of encoded pixel parameter values and the set of

segment reference pixel values. (Col 1 lines 16-59, Col 2 lines 15-18, Col 3 lines 15-47,

Col 5 lines 13-19, Col 5 line 50-Col 6 line 65, Col 8 lines 11-22, Col 9 lines 18-26, Col 9

lines 58-64, Figs 3-4) Again it should be noted that prior to decoding, the video data is

first received with quantization table for encoding purposes.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 4, 16, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Satoh. (6597815)

Regarding claim 4, Satoh does not explicitly teach segment reference pixels

comprises of red, green, blue and black pixels. Examiner takes official notice that it is

well known in the art to have pictures comprising of all 4 of those said pixels. It would

have been obvious to one of ordinary skill in the art at the time the invention was made

to combine the teachings of representing a picture with red, green blue and black pixels

in the system of Satoh because utilizing quantization of color values such as red, green,

blue and black components provides the functionality of providing decompression for

additional color models to be realized.

Regarding claim 16 Satoh teaches after scaling, communicating the decoded

pixels onto a computer to be displayed. However Satoh does not explicitly teach a

playback device. Examiner takes official notice that Windows OS supports many

existing playback devices (such as windows media player) to synchronize video data. It

would have been obvious to one of ordinary skill in the art at the time the invention was

made to combine the teachings of communicating decoded pixels to a playback device

because providing the functionality of synchronizing video content with digital audio

content and thus, allowing users to listen to music at real-time can be achieved.

Regarding claim 18, Satoh teaches prior to communicating decoded pixel

parameter values to the playback device, converting decoded pixel parameter values to

another display format. (Fig. 5) It should be noted that Satoh teaches color space

conversion to RGB prior to displaying the image.

Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Satoh (6597815) in view of Crawford (5416614)

Regarding claim 6, It should be noted that Satoh does teach luminance and

chrominance tables utilized for quantization (decompression and compression). Satoh

does not explicitly teach segment reference pixel values comprises a dominant color

pixel value, nondominant pixel color values, luminance and chrominance values. This is

what Crawford teaches. (Col 6 line 9- Col 7 line 59) It should be noted that Satoh

teaches entries in a table for R, G, B, Cr, Cb and Y values. It would have been obvious

to one of ordinary skill in the art at the time the invention was made to combine the

teachings of tables of pixel values comprising a dominant color pixel value,

nondominant pixel color values, luminance and chrominance values into the system of

Satoh because enabling reversible conversion between two representations of an

image in color space where look-up tables are used to represent the conversion

between two color space can be achieved (Col 4 lines 21-31) and thus, enabling

multiple conversions of image between one color space and another with minimal

distortion to the data representation image. (Col 2 lines 40-43)

Regarding claim 7, it should be noted Satoh teaches scaling segment reference

pixel's luminance and chrominance values utilizing a quantization table for each

component. However Satoh does not explicitly teach utilizing a table for dominant color

pixel value, nondominant pixel color values, luminance and chrominance values. This is

what Crawford teaches. (Col 6 line 9- Col 7 line 59) It should be noted that Satoh

teaches entries in a table for R, G, B, Cr, Cb and Y values. It would have been obvious

to one of ordinary skill in the art at the time the invention was made to combine the

teachings of tables of pixel values comprising a dominant color pixel value,

nondominant pixel color values, luminance and chrominance values into the system of

Satoh because enabling reversible conversion between two representations of an

image in color space where look-up tables are used to represent the conversion

between two color space can be achieved (Col 4 lines 21-31) and thus, enabling

multiple conversions of image between one color space and another with minimal

distortion to the data representation image. (Col 2 lines 40-43) Thus, by utilizing a

quantization table for all 4 components, the same scaling (quantization) would be

performed on all 4 components.

Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh (6597815) in view of Ladwig. (6247014)

Regarding claim 8, Ladwig teaches where each one of redundant entries (in a table) is utilized by recalling previously values associated with each of the redundant entries. (Col 2 lines 10-12, Col 6 lines 6-11, Fig. 11) It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a pointer for redundant entries (in a table) into the system of Satoh because the pointer may be used as reference to explicitly tie one piece of redunant structure to another, allowing tables and/or lists to be better managed by the user.

Claim 12, 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh (6597815) in view of Koshiba (6933970)

Regarding claim 12, Koshiba teaches synchronizing audio data associated with decoded video parameter values. (Col 33 line 37- Col 36 line 39) It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize synchronizing audio data with decoded data into the system of Satoh because video decoding could be fast or slower than real-time audio requirement and thus improving the quality of playback, playback synchronization can be achieved. (Col 33 lines 38-48)

Regarding claim 17, Koshiba teaches communicating and synchronizing audio data to the playback device. (Col 33 line 37- Col 36 line 39) It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize synchronizing audio data with decoded data into the system of Satoh because video

decoding could be fast or slower than real-time audio requirement and thus improving

quality of playback, playback synchronization can be achieved. (Col 33 lines 38-48)

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh

(6597815) in view of Basso. (6751623)

Regarding claim 14, Basso teaches a header comprised of video fram

information and audio information. (Col 2 lines 53-65, Col 5 lines 47-63, Col 6 lines 23-

32, Fig.1) It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of a header into the system of Satoh

because allowing access to important information about access units without having to

parse the actual underlying encoded media data can be achieved. (Col 5 lines 59-63)

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh

(6597815) in view of Basso (6751623) in further view of Boice. (6999511)

Regarding claim 15, Boice teaches using a header to determine data locations

within the file, including the beginning and end of the values. (Col 10 lines 35-48, Fig.

10) It would have been obvious to combine the teachings of a header to determine data

locations within the file, including the beginning and end of the values into the system of

Satoh in order to determine data locations including beginning and end of encoded pixel

parameter values and corresponding segment reference pixel values because providing

to the user additional information about the image such as the beginning and end of the
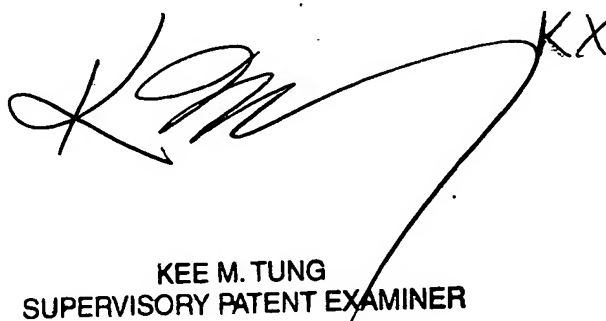
image file can be realized.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin K. Xu whose telephone number is 571-272-7747. The examiner can normally be reached on 8:30AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman can be reached on 571-272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin Xu

3/30/07

KEE M. TUNG
SUPERVISORY PATENT EXAMINER